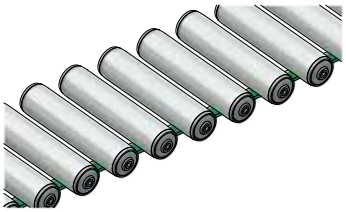
Drive Elements

Conveyor roller can be driven different ways. The following is important for the selection of the drive:

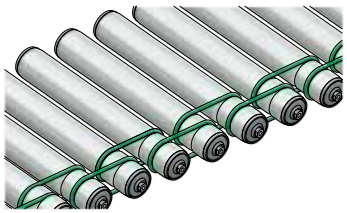
- transport device
- transport weight
- transport speed
- drive concept (accumulation drive/permanent drive)
- length of the conveyor
- environmental conditions
- selection of the driving element

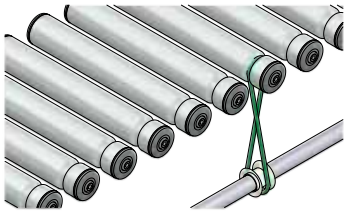
Available Types of drive:

- Flat belt drive
  Conveyor roller are driven by a flat belt mounted below the roller.
  For this concept all conveyor roller with a precision ball bearing from the Rollex-Roller range can be used.

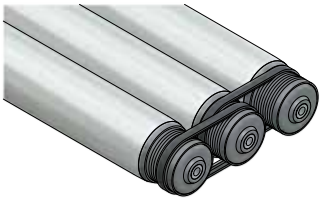


- Round belt drive
  Round belt drives can be constructed in two different versions, either the torque is transmitted from roller to roller or by a so-called upright shaft below the roller. Versions please see page 46 in chapter 2.





- Ripped-V-Belt Grooved Belt Drive
  Conveyor roller are driven by a Ripped-V-Belt grooved belt, by the use of the roller with a PJ-profile (up to 500N) or with a PK-profile (up to 10.000N). The center distance tolerance should be between -1 and +1mm.



Drive Elements

Ripped-V-Belt Grooved Belts

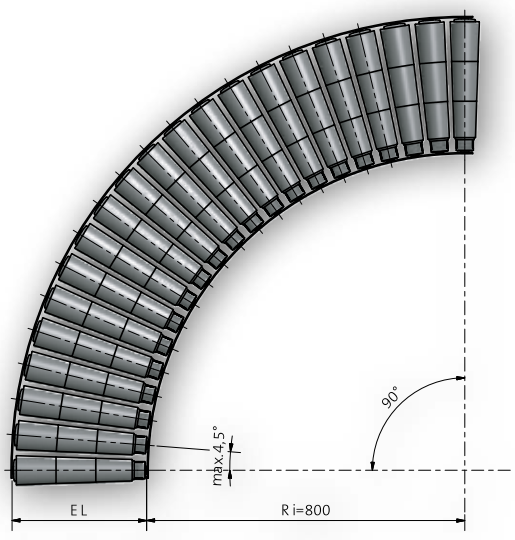
Center distance	Ripped-V-Belt Belt 2 or 3 ribs
55 mm	PJ 246
60 mm	PJ 256
68 mm	PJ 270
73 mm	PJ 282
75 mm	PJ 286
80 mm	PJ 290
90 mm	PJ 314
94 mm	PJ 316
100 mm	PJ 336
105 mm	PJ 346
120 mm	PJ 376

Ripped-V-Belt Drive D = 43 mm

Center distance	Ripped-V-Belt Belt 6 or 8 ribs
145 mm	PK 541
160 mm	PK 573
169 mm	PK 589
180 mm	PK 611
200 mm	PK 651
225 mm	PK 701
250 mm	PK 751
300 mm	PK 801

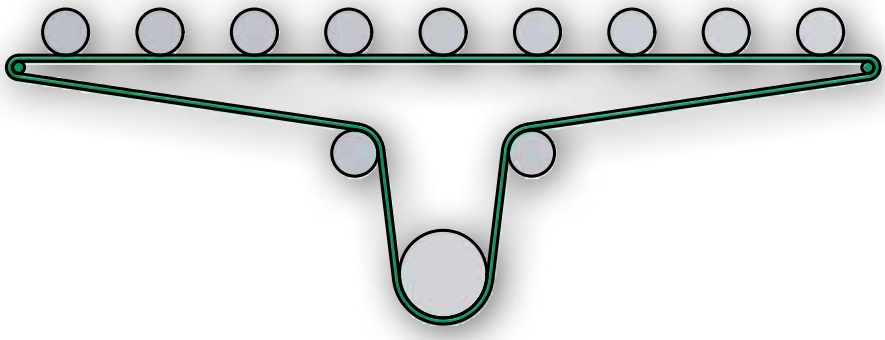
Ripped-V-Belt Drive D = 80 mm

The Ripped-V-Belt grooved belt with 2 ribs can even be used for curved conveyor lines.
Please note that the angle between the conical roller should be max. 4,5°.

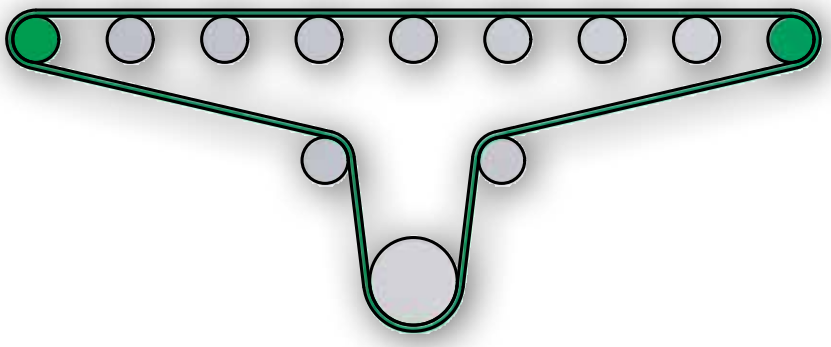


Drive Elements

Tooth Belt Drive:	Conveyor roller are manufactured with a tooth belt drive, using a Poly Chain- toothing or an HTD- toothing. The center distance tolerance should be between 0 to - 0,3mm.
Chain Drive:	Conveyor roller are manufactured with a chain sprocket, depending on the drive concept (tangential drive or drive from roller to roller).
Tangential Drive:	Using the tangential drive only one chain is required for driving the complete roller track. Please note that for this concept only one tooth of the sprocket is working . The chain is guided by a chain slide bar.

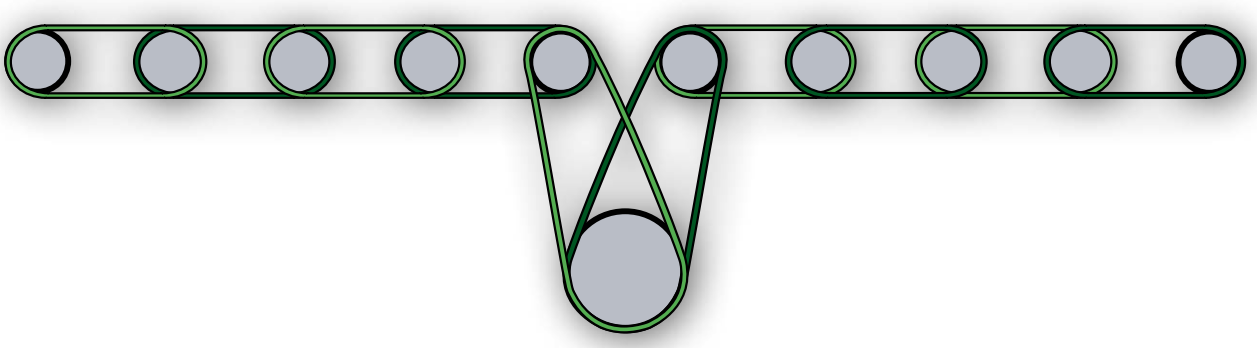


If the tangential chain is installed above the roller the last roller have to get a normal tooth profile because the bolt tooth form for tangential drive can not be used for chain enlacement.



Drive Elements

Drive roller to roller: The drive roller to roller is used with a double chain sprocket . The tolerance of the shaft center should be 0 to + 0,3 mm.



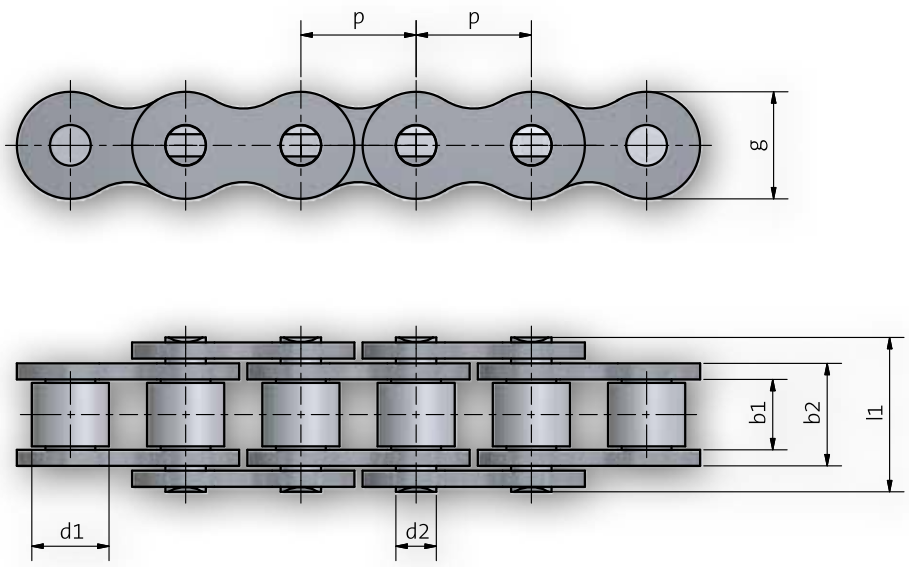
Please note the **centre to centre distances** for the different chains.

Chain left	3/8 x 7/32“ z = 12	1/2 x 5/16“ z = 14	5/8 x 3/8“ z = 15	3/4 x 7/16“ z = 13
22	47,6			
24	57,2			
26	66,7	76,2		123,8
28	76,2	88,9	103,2	142,9
30	85,8	101,6	119,1	161,9
32	95,3	114,3	134,9	181,0
34	104,8	127,0	150,8	200,0
36	114,3	139,7	166,7	219,1
38	123,9	152,4	182,6	238,1
40	133,4	165,1	198,5	257,2
42	142,9	177,8	214,3	276,2
44	152,4	190,5	230,2	295,3
46		203,2	246,1	314,3
48		215,9	261,9	333,4
50		228,6	277,8	352,4
52		241,3	293,7	371,5
54		254,0	309,6	390,5
56		266,7	325,4	409,6
58		279,4	314,3	428,6
60		292,1	357,2	447,7

Centre to centre distances in mm of the driving element.

Drive Elements

For dimensioning driven transport facilities please watch the break load of the chains.
Roller Chains DIN 8187



DIN/ISO Chain-No.	Trade Name p x b_1	p	b_1	b_2	d_1	d_2	k	g	k	Break Load L_1	N
			min.	max.	max.	max.	min.	max.	max.	min.	min.
06 B-1	3/8“ x 7/32“	9,525	5,72	8,53	6,35	3,28	3,33	8,2	3,3	13,5	9000
08 B-1	1/2“ x 5/16“	12,7	7,75	11,3	8,51	4,45	3,9	11,8	3,9	17	18000
10 B-1	5/8“ x 3/8“	15,88	9,65	13,28	10,16	5,08	4,1	14,7	4,1	19,6	22400
12 B-1	3/4“ x 7/16“	19,05	11,68	15,62	12,07	5,72	4,6	16,1	4,6	22,7	29000
16 B-1	1“ x 0,67“	25,4	17,02	25,4	15,88	8,82	5,4	21	5,4	36,1	60000

Single Roller Chains DIN 8187 (European version) ISO 606- 1982